

(12) UK Patent Application (19) GB (11) 2 387 042 (13) A

(43) Date of A Publication 01.10.2003

(21) Application No 0303772.8

(22) Date of Filing 19.02.2003

(30) Priority Data

(31) 0207366

(32) 28.03.2002

(33) GB

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(51) INT CL⁷

H01R 13/46

(52) UK CL (Edition V)

H2E EDT

(56) Documents Cited

GB 2320820 A

WO 1996/014677 A1

WO 1988/009074 A1

US 5735708 A

US 5613874 A

(58) Field of Search

UK CL (Edition V) H2E

INT CL⁷ H01R

Other: ONLINE: EPODOC, JAPIO, WPI

(54) Abstract Title

An electrical connector including label mounting means

(57) An electrical connector provided with label mounting means comprising a cover member 24. The electrical connector is of the type that may be secured in a desired position and have a piece of electrical equipment releasably connected. The cover member 24 may be formed from a transparent material, for example perspex and may have formations which may be mounted onto location means on the connector housing by a clipping operation. The connector may comprise a recess in which it is desired to locate a label 30, said recess being bounded on opposite sides by slots 14a, 14b and along a lower edge by a shoulder 15 acting as a stop for movement of the label. There may be guidance means provided to assist the insertion of the label between the housing and the cover member and to engage the label in a width-wise direction. The electrical connector may connect a telephone to a telephone network.

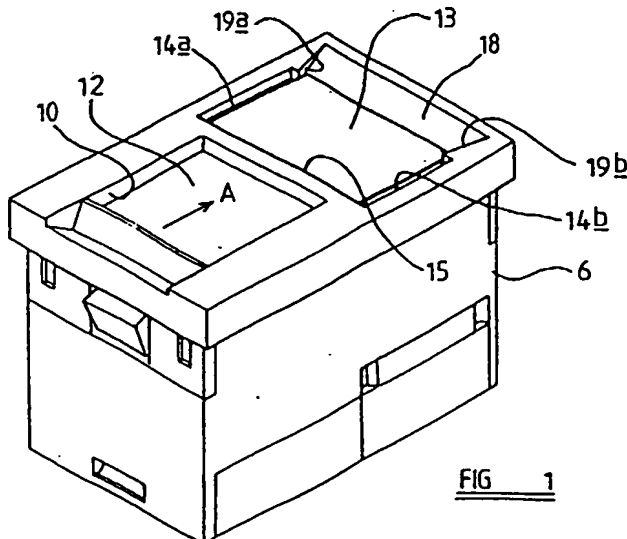


FIG 1

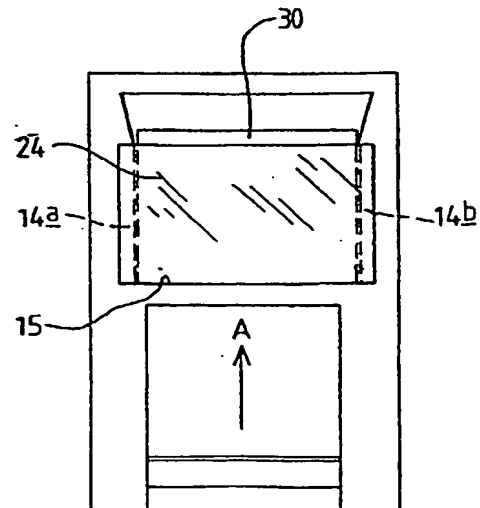
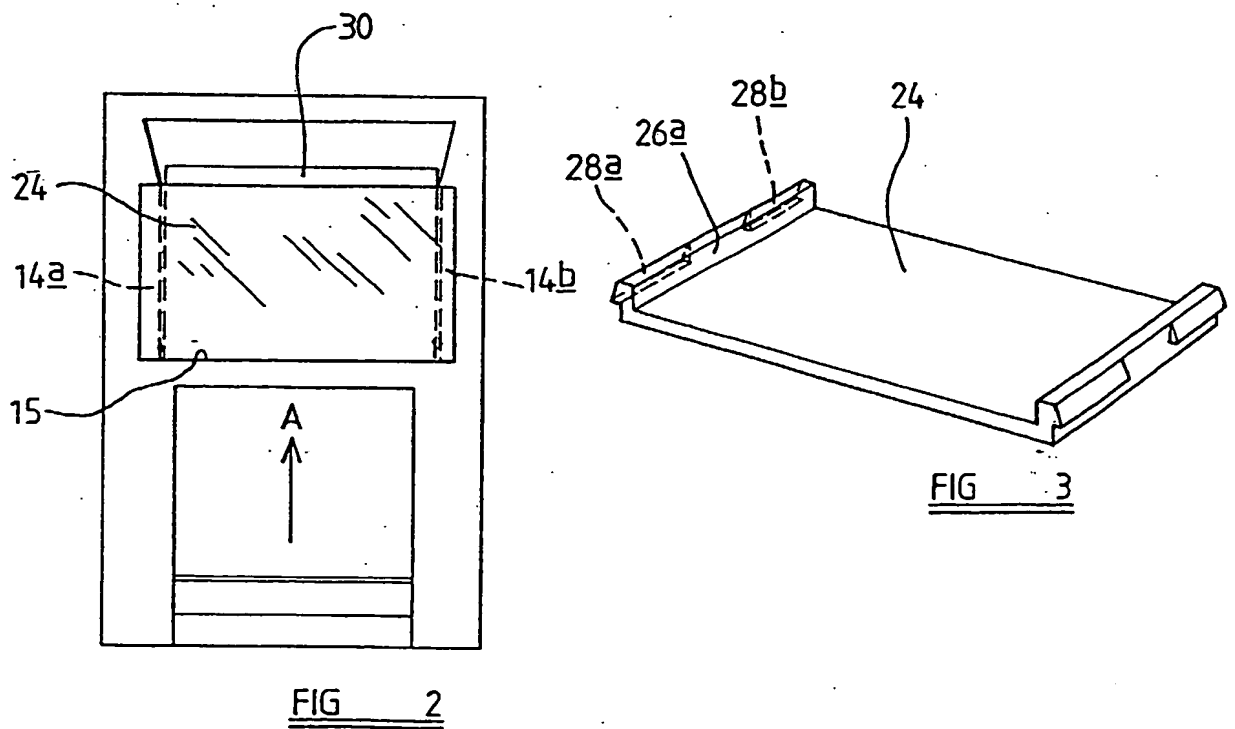
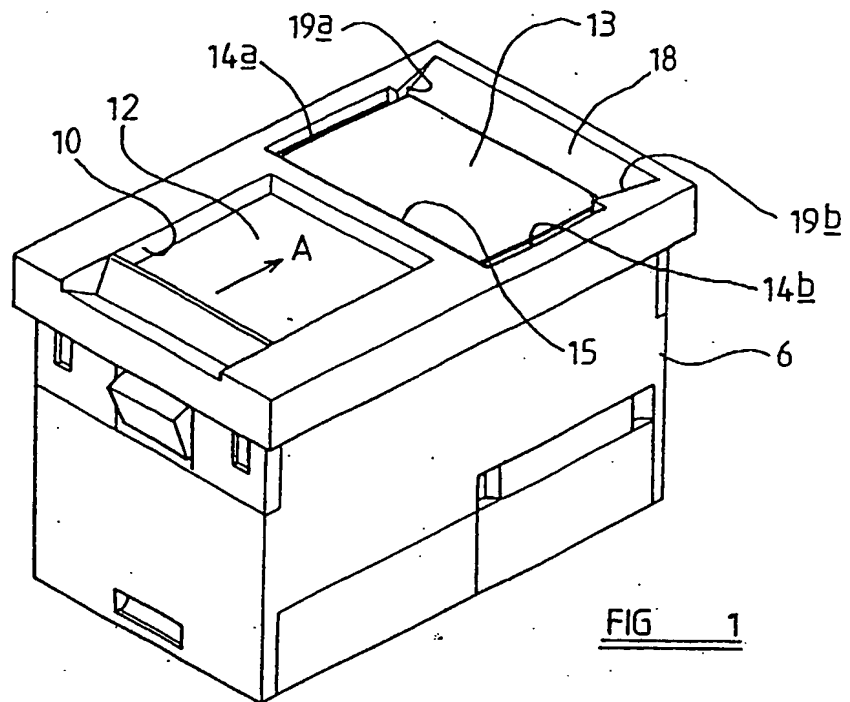


FIG 2

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PATENTS ACT 1977

A10558GB - WL

Title: Improvements Relating to Electrical Connectors

Description of Invention

This invention is concerned with electrical connectors, particularly of the kind as may be secured in a desired position (such as to a wall or distribution board) and to which a piece of electrical equipment (hereinafter referred to as a "device" for convenience), may releasably be connected. Such connectors are hereinafter referred to as being of the kind specified.

For example a connector may be connected electrically to a telephone distribution board, into which a plug provided at one end of a telephone cable, may be connected in a simple and convenient manner.

Alternatively, connectors may be connected electrically to a central processing unit of a computer, enabling a terminal to be connected to a desired outlet of the central processing unit.

More recently connectors have been arranged in banks, eg. a plurality of connectors may be arranged side-by-side, enabling a device to be connected to a selected connector. Correct indication of the address of the connector is thus important, as determining the address of one connector from a bank of connectors may be a difficult and time consuming process to carry out subsequently.

Several methods are utilised to provide a correct indication of the address of the connector, including the use of labels secured in position by adhesive. One such method, which is in common use, involves providing the connector with a label mounting means, by which a label may easily be mounted on the connector, and easily removed therefrom for replacement. For example, the label mounting means may be in the form of a pair of parallel ribs

of L-shape in cross-section, extending width-wise of the connector, whereby a label may be mounted on the connector by insertion between the ribs, in the width-wise direction.

Whilst conventionally such label mounting means has been provided with a stop means to limit the insertion of the labels between the ribs, nonetheless in the absence of a means to prevent movement of the label in the opposite direction, there is a tendency for the label to be inadvertently displaced, which may cause subsequent difficulties.

According to this invention there is provided a connector of the kind specified provided with label mounting means comprising a cover member secured or adapted to be secured to the housing between which and the housing a label may be located.

Preferably the cover member is transparent, and is conveniently provided by a plastics material such as perspex or the like.

The cover member is conveniently mounted on the housing by a clipping operation, and thus conveniently the housing comprises location means, conveniently in the form of slots or apertures, into which formations on the cover member may be located.

When mounted on the housing preferably the cover member extends parallel to and spaced a short distance from a front face of the housing. Preferably the cover member comprises a flat face, and ribs by which the front face may be retained in spaced relationship with the housing. Preferably the location formations as hereinbefore referred to are provided on such ribs.

Preferably the housing provides a shoulder providing a stop for movement of the label between the housing and the cover member.

Preferably the housing is provided with guidance means to assist in the movement of a label between the housing and the cover member, preferably said guidance means being operative in two mutually perpendicular directions.

Thus preferably the guidance means comprises first guidance means, operative to assist the insertion of the label between the housing and the cover member, and second guidance means operative to engage the label in a width-wise direction.

According to this invention there is also provided a connector of the kind specified, together with a label, the connector comprising a transparent cover member for the label, wherein the label is larger than the cover member and is accessible from a location spaced a short distance from the cover member.

Thus by using a label which is slightly oversized in relation to the space available for it to be located, it is ensured that a small part at least of the label protrudes beyond the cover member, enabling the label to be engaged such as by a finger or thumb nail of the user, and thus removed from the space between the cover member and the housing.

There will now be given a detailed description, to be read with reference to the accompanying drawings, of a connector which is a preferred embodiment of this invention, having been selected for the purposes of illustrating the invention by way of example.

In the accompanying drawings:

FIGURE 1 is a perspective view showing the connector which is the preferred embodiment of the invention, with a cover member thereof removed for clarity;

FIGURE 2 is a plan view of the front face of the connector; and

FIGURE 3 is a perspective view of the cover member of the connector.

The connector which is the preferred embodiment of this invention is specifically for use in connecting a telephone to a telephone network, comprising a housing 6, adapted to be secured to a support member such as a distribution board, and having a front face 8 provided with an aperture 10. A shutter 12 is mounted for sliding movement within the aperture 10, and is

capable of movement in the direction of the arrow A to permit a plug (not shown) to be inserted into the aperture, and into electrical connection with a terminal array mounted therein.

Located above the shutter 12 is a shallow rectangular recess 13, providing an area in which it is desired to locate a label, said recess being bounded on opposite sides by slots 14a, 14b and along a lower edge, by a shoulder 15.

Opposite the shoulder the wall of the housing is ramped, as shown at 18, providing first guidance means of the connector, whilst side walls 19a and 19b are inwardly inclined, providing second guidance means of the connector. End regions of the side walls 19a and 19b afford shoulders 20a, 20b, facing the shoulder 15.

The connector also comprises a cover member 24, in the form of a thin plate of transparent material such as perspex, provided on opposite sides with shallow ribs 26a, 26b, each rib terminating in a deflectable location formation 28a, 28b.

The cover member 24 may be mounted on the connector by snap-fitting the ribs 26a, 26b into the slots 14a, 14b, the location formations 28a, 28b retaining the cover member spaced a short distance from the face of the recess 13, and restraining inadvertent movement of the cover member from the connector.

A label, such as is indicated at 30 in Figure 2, may be inserted into the space between the face of the recess 13 and the cover member 24, such insertion being assisted by a location of the leading edge of the cover member within the ramped portion 18, providing said first guidance means, whilst the side walls 19a and 19b ensure a correct width-wise location of the label, providing said second guidance means. In this manner a label may be mounted

on the connector member easily, despite the connector member being difficult to reach.

Conveniently a cover member is utilised which is slightly oversized in the direction of insertion, ensuring that the label has been fully inserted into position, a trailing edge protrudes from the cover member 24, as is shown in Figure 2, enabling the label to be engaged by, for example, a person's finger nail, for easy removal.

By the use of the invention not only may a label be mounted on the connector very easily, but is also protected by the transparent cover member against its markings being obliterated.

Whilst the invention has been described above in relation to its application to a telephone connector, it will of course be appreciated that the invention may be utilised with advantage in other electrical distribution systems, including not only telephone networks but also personnel computers, and similar devices used for communication purposes within computer and telephone networks.

In the present specification "comprises" means "includes or consists of" and "comprising" means "including or consisting of".

The features disclosed in the foregoing description, or the following claims, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, as appropriate, may, separately, or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

CLAIMS

1. A connector of the kind specified provided with label mounting means comprising a cover member secured or adapted to be secured to the housing between which and the housing a label may be located.
2. A connector according to claim 1 wherein the cover member is transparent.
3. A connector according to one of claims 1 and 2 wherein the cover member is mounted on the housing by a clipping operation.
4. A connector according to claim 3 wherein the housing comprises location means into which formations on the cover member may be mounted.
5. A connector according to claim 4 wherein the location means is in the form of slots or apertures into which said formations may be located.
6. A connector according to any one of the preceding claims wherein the cover member when mounted on the housing extends parallel to and spaced a short distance from a front face of the housing.
7. A connector according to claim 6 wherein the cover member comprises a flat face, and ribs by which the front face may be retained in spaced relationship with the housing.

8. A cover member according to claim 7 wherein the ribs provide the or said location means into which formations on the cover member may be located.
9. A connector according to any one of the preceding claims wherein the housing provides a shoulder providing a stop for movement of the label between the housing and the cover member.
10. A connector according to claim 9 wherein the housing is provided with guidance means to assist in the movement of the label between the housing and the cover member.
11. A connector according to claim 10 wherein said guidance means is operative in two mutually perpendicular directions.
12. A connector according to one of claims 10 and 11 wherein the guidance means comprises first guidance means, operative to assist the insertion of the label between the housing and the cover member, and second guidance means operative to engage the label in a width-wise direction.
13. A connector of the kind specified, together with a label, the connector comprising a transparent cover member for the label, wherein the label is larger than the cover member and is accessible from a location spaced a short distance from the cover member.
14. A connector constructed and arranged substantially as hereinbefore described with reference to the accompanying drawings.

15. Any novel feature or novel combination of features hereinbefore described and/or shown in the accompanying drawings.



INVESTOR IN PEOPLE

Application No: GB 0303772.8
Claims searched: 1-14

Examiner: Catherine Jones
Date of search: 25 March 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance	
X	1-9	US 5735708 A	(LUCENT) - see the figures and col. 3 lines 29-67
X	1, 2 & 9-12	US 5613874 A	(ORTRONICS) - see the figures
X	1-3 & 9-12	GB 2320820 A	(LLOYD-DAVY) - see figures 9 & 10 and page 5
X	1-2 & 9	WO 88/09074 A1	(HILL) - see abstract
X	1 & 9-12	WO 96/14677 A1	(SIEMON) - see figure 12

Categories:

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^v:

H2E

Worldwide search of patent documents classified in the following areas of the IPC⁷:

H01R

The following online and other databases have been used in the preparation of this search report:

EPODOC, JAPIO, WPI

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